

00250.000027

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

IKUO MIMURA ET AL.

Application No.: 09/980,703

Filed: December 7, 2001

For: FLUOROSCENT
RETROREFLECTIVE SHEET

)
: Examiner: Not Yet Assigned

Group Art Unit: 1746

: July 9, 2003

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:


In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and in accordance with the practice under 37 C.F.R. §§ 1.97 and 1.98, the Examiner's attention is directed to the documents listed on the enclosed Form PTO-1449. Copies of the listed documents are also enclosed.

CONCLUSION

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.

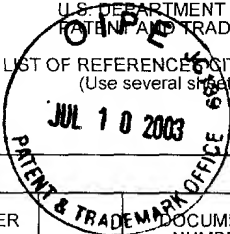
Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,


Attorney for Applicants
Lawrence S. Perry
Registration No. 31,865

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GROUP 1700

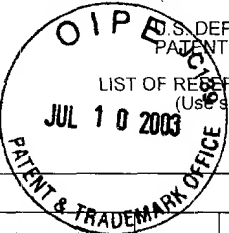
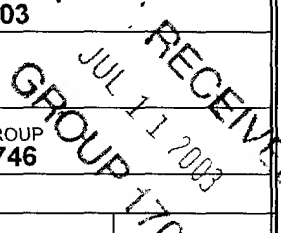
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New York, New York 10112-3801
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FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCE CITED BY APPLICANT(S) (Use several sheets if necessary)			ATTY DOCKET NO. 00250.000027		APPLICATION NO. 09/980,703	
			APPLICANT Ikuo Mimura et al.			
			FILING DATE December 7, 2001		GROUP 1746	
U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	3,190,178	6/22/65	McKenzie			
	3,830,682	8/20/74	Rowland	161	2	
	4,498,733	2/12/85	Flanagan	350	102	
	4,554,496	10/1/85	Claussen, et al.	252	301.35	
	4,764,622	8/16/88	Claussen et al.	235	18	
	4,775,219	10/4/88	Appeldorn, et al.	350	103	
	4,801,193	1/31/89	Martin	350	103	
	5,122,902	6/16/92	Benson	359	529	
	5,264,063	11/23/93	Martin	156	247	
	5,376,431	12/27/94	Rowland	428	164	
	5,706,132	1/6/98	Nestegard, et al.	359	529	
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
	0 830 621	11/01	EP			
	1 164 390	12/01	EP			
	96/10197	4/96	EP			
	11-305017	11/99	JP			Abstract
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)						
EXAMINER			DATE CONSIDERED			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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				GROUP 1746			
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,601,911	2/11/97	Ochi, et al.	428	304.4	
		5,672,643	9/30/97	Burns, et al.	524	90	
		5,764,413	6/9/98	Smith et al.	359	530	
		5,831,767	11/3/98	Benson et al.	359	529	
		5,840,405	11/24/98	Shusta et al.	428	156	
		5,840,406	11/24/98	Nilsen	428	156	
		5,844,712	12/1/98	Caroli	359	529	
		5,854,709	12/29/98	Couzin	359	529	
		5,889,615	3/30/99	Dreyer	359	515	
		5,898,523	4/27/99	Smith et al.	359	530	
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
		0 042 090	6/81	EP			Abstract
		29 34 541	4/81	DE			No
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER				DATE CONSIDERED			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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				APPLICANT Ikuo Mimura et al.			
				FILING DATE December 7, 2001			
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,914,812	6/22/99	Benson et al.	359	529	
		5,981,032	11/9/99	Smith et al.	428	167	
		5,988,820	11/23/99	Huang, et al.	359	530	
		6,036,322	3/14/00	Nilsen, et al.	359	529	
		6,083,607	7/4/00	Mimura, et al.	428	167	
		6,120,280	9/19/00	Mimura et al.	425	195	
		6,155,689	12/5/00	Smith	359	530	
		6,206,525	3/27/01	Rowland et al.	359	530	
		6,390,629	5/21/02	Mimura et al.	359	530	
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER				DATE CONSIDERED			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



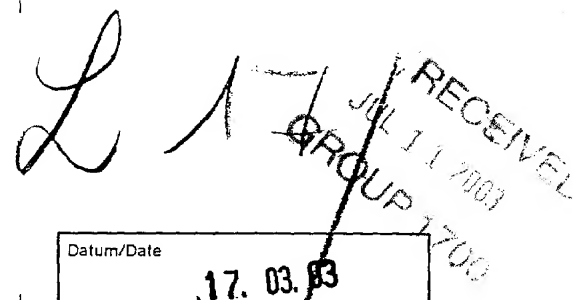
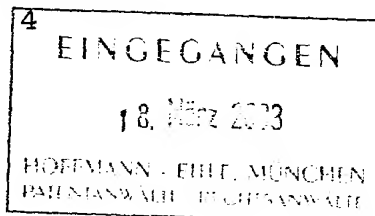
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Datum/Date
17. 03. 03

Zeichen/Ref./Réf. 91 067 a/fi	Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n° 01906204.1-2117/JP0101294
Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire Nippon Carbide Kogyo Kabushiki Kaisha	

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COMMUNICATION

The European Patent Office herewith transmits the supplementary partial European search report under Rule 46(1) EPC relating to the above-mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following:

The search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within ONE MONTH after notification of this communication.

If the application has been filed up to 30 June 1999, the search fee in force before 01 July 1999 (EUR 869,-) or the equivalent applicable on the date of payment is payable.

This applies also to the search fees requested under Rule 46(1) EPC.

See also OJ EPO 06/1999, 405.

☒ Additional set(s) of copies of the documents cited in the supplementary European search report is (are) enclosed as well.

(01)

S. Polenzani



Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement to OJ EPO 02/1999.

REGISTERED LETTER

EPO Form 1507 6 (07/99)



European Patent
Office

**SUPPLEMENTARY
PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 46, paragraph 1 of the European Patent Convention EP 01 90 6204

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X,D	US 5 672 643 A (BURNS DAVID M ET AL) 30 September 1997 (1997-09-30) * column 8, line 33; figure 3 * ---	1,2,4-12	G02B5/12 C09B57/00 C09B57/02 C09B23/00
Y	US 5 601 911 A (OCHI KATSURA ET AL) 11 February 1997 (1997-02-11) * column 9, line 46-62; figures 1,2 * ---	1,2,4-12	
Y	EP 0 042 090 A (BAYER AG) 23 December 1981 (1981-12-23) * claim 1 * ---	1,2,4-12	
Y	DE 29 34 541 A (BAYER AG) 16 April 1981 (1981-04-16) * page 16, line 19; claim 1 * -----	1,2,4-12	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			C09B
LACK OF UNITY OF INVENTION			
The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely			
see sheet B			
The present partial European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.			
Place of search		Date of completion of the search	Examiner
MUNICH		27 February 2003	Grassi, D
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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EPO FORM 1503 03 82 (P04C23)



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1(part),2,4-12(part)

Fluorescent retroreflective sheeting comprising a dye of formula (1) 'This claim is not unitary but could be searched without extra effort!.

2. Claims: 1(part),3-12(part)

Fluorescent retroreflective sheeting comprising a dye of formula (2).

The document US-A-5 672 643 (D1, cited in the application) discloses fluorescent retroreflective sheeting of colour tone in a specific range wherein retroreflective elements layer of cube-corner retroreflective sheeting contains a combination of perylene imide type-fluorescent dye with a specific fluorescent dye which is selected from Lumogen F Yellow 083, CI Solvent Yellow 160:1, CI Solvent Green 4, CI Pigment Yellow 101, CI Solvent Yellow 131, CI Solvent Yellow 98, Oraset Yellow 8GF, CI Solvent Green 5 and Golden Yellow D304.

The fluorescent dye Oraset Yellow 8GF appears to be present compound 1-3 (cf. page 5 and claim 2). Additionally, the Figure 3 of D1 discloses an encapsulated type fluorescent retroreflective sheeting according to present claim 1. In order to arrive at the subject-matter of the present claim 1, the skilled person merely has to select Oraset Yellow 8GF from the above mentioned list.

The technical problem underlying the present application is seen in the provision of alternative fluorescent retroreflective sheetings.

In view of D1, the different alternatives claimed do not share a common special technical feature and lack, therefore, unity of invention.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 90 6204

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

27-02-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5672643	A	30-09-1997	AU 703979 B2	01-04-1999
			AU 6958096 A	17-04-1997
			CN 1197472 A , B	28-10-1998
			DE 69616584 D1	06-12-2001
			DE 69616584 T2	11-07-2002
			EP 0862599 A1	09-09-1998
			JP 11512762 T	02-11-1999
			WO 9712000 A1	03-04-1997
			US 5754337 A	19-05-1998
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			JP 8234006 A	13-09-1996
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			DE 3160178 D1	19-05-1983
			EP 0042090 A2	23-12-1981
			JP 57025363 A	10-02-1982
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			DE 3064042 D1	11-08-1983
			EP 0025136 A1	18-03-1981
			JP 1510450 C	09-08-1989
			JP 56036549 A	09-04-1981
			JP 63054753 B	31-10-1988
			US 4544496 A	01-10-1985
			US 4764622 A	16-08-1988